Remarks

Claims 28-40 are pending in this application. In an Office Action mailed February 7, 2006, the Examiner rejected claims 28-40 under the judicially created doctrine of obviousness-type double patenting over claims 1-33 of U.S. Patent No. 6,839,819 ("the '819 patent"). The Examiner rejected claims 28-40 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,792,517 to Brunnett *et al.* ("Brunnett"). Applicants respectfully disagree with the Examiner's rejections and request reconsideration in light of the following remarks.

The § 102 Rejections

Independent claim 28 provides a method of monitoring data stored on a primary storage system. A sequence of mirrors-in-the-middle is created. Each mirror-in-the-middle includes a copy of data stored on the primary storage system at a fixed point in time. A first mirror-in-the-middle is checked to see if a copy of data stored on the first mirror-in-the-middle satisfies at least one constraint. If not, checking previous mirrors-in-the-middle is repeated until one of the previous mirrors-in-the-middle includes an uncorrupted copy of data satisfying the constraint.

The Examiner rejected claim 28 as anticipated by Brunnett. However, Brunnett does not disclose any constraint checking. The Examiner's sole support that Brunnett discloses Applicants' constraint checking is "Summary and Column 3 lines 35 - 53."

Brunnett's invention appears to be subdividing a hard disk so that one portion holds an imaged backup of another portion. As such, the Summary of the Invention makes no mention of any kind of checking. The section from column 3 also makes no mention of constraint checking:

> FIG. 2 is a block diagram of the control processes 50 of the disk which, in the illustrated embodiment, are embodied in the controller and in the disk's internal memory (comprising RAM 24 and ROM 26 in the illustrated embodiment).
>
> In the illustrated block diagram, shown in FIG. 2, disk control processes 50 comprise ROM 26. A number of processing components are stored within ROM 26, some of which are illustrated in FIG. 2. Other processing components may be provided that are not specifically shown in FIG. 2. As shown in FIG. 2, within ROM 26, backup control software 52 and backup

> access control software 54 are each provided. In addition, ROM 26 has disk operating system software 58 and disk operational data 60. ROM 26 further comprises a password receipt and clearance mechanism 56.
>
> Hardware switching mechanisms may be connected to backup access control software 54. In the illustrated embodiment, one or more jumpers 48a and switches 48b are coupled to backup access control software 54.

Contrary to Applicants' invention, Brunnett discloses accessing back-up information without any constraint checks.

> The disk may be provided with two alternate modes: in a first mode, the host, whenever it accesses data (reading or writing) in the hard disk, uses the primary portions of the disk media, and in a second mode, the host uses the backup portion of the disk media. When a given block is specified by the host for retrieval or for writing, if the hard disk is set to be in the first mode, that block of information is read from or written to a location within the primary portion. If the hard disk is in the second mode, that given block will be read from or written to a location within the backup portion. Alternatively, the backup area could always be accessible by the host, but in a read-only capacity.

Brunnett neither teaches, nor fairly suggests, Applicants' checking of a mirror-in-the-middle to see if a copy of data stored thereon satisfies at least one constraint. Claim 28 is patentable over Brunnett. Claims 29-34, which depend from claim 28, are therefore also patentable.

Independent claim 35 provides a data management appliance including a random-access storage unit and control logic. The random-access storage unit stores a sequence of mirrors-in-the-middle with each mirror-in-the-middle including a copy of data stored on a primary storage system at a fixed point in time. The control logic checks a first mirror-in-the-middle to see if a copy of data stored on the first mirror-in-the-middle satisfies at least one constraint and, if not, repeats checking previous mirrors-in-the-middle until one includes an uncorrupted copy of data satisfying the at least one constraint.

The Examiner rejected claim 35 using the same argument as for claim 28. As provided above, Brunnett neither teaches nor fairly suggests Applicants' control logic that checks to see if a copy of data stored on a mirror-in-the-middle satisfies at least one constraint.

Claim 35 is patentable over Brunnett. Claims 36-40, which depend from claim 35, are therefore also patentable.

The Obviousness-Type Double Patenting Rejections

Because the above-mentioned application and the '819 patent share the same filing date, a one-way test for obviousness applies. In other words, are the claims of the above-mentioned application an obvious variation of the invention defined in the claims of the '819 patent? While not admitting that they have the same scope, claims 28 and 35 provide for storing a sequence of mirrors-in-the-middle, checking one of these to see if a copy of data stored thereon satisfies at least one constraint and, if not, checking previous mirrors-in-the-middle.

In order to establish a *prima facie* case of obviousness, the Examiner must find a teaching or suggestion for each limitation of the claims at issue in the claims of the '819 patent. The Examiner's only attempt is to state that "creating a sequence of mirrors-in-the-middle, each mirror-in-the-middle including a copy of data stored on the primary storage system at a fixed point in time; can be random-access storage unit storing a mirror-in-the-middle containing a copy of contents of a primary storage device at a fixed point in time." There is no hint in the cited passage for making any check to see if data satisfies a constraint, nor does the Examiner make any attempt to find one. The Examiner has therefore failed to establish a *prima facie* case of obviousness-type double patenting.

Conclusion

Claims 28-40 are pending in this application. Applicants believe claims 28-40 are in appropriate condition for allowance and respectfully request that this case be passed to issuance. No fee is believed due by filing this paper. However, any fee due may be charged to Deposit Account No. 19-4545.

Respectfully submitted,

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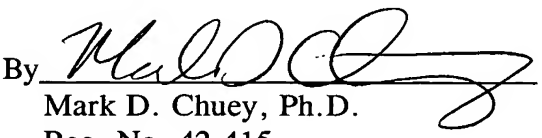
By 

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